

REMARKS

This responds to the Office Action mailed on June 28, 2007.

Claims 1-11, 18, and 21 are amended, claim 20 is canceled, and no claims are added; as a result, claims 1-19 and 21-26 remain pending in this application.

§102 Rejection of the Claims

Claims 1-7, 10, 11 and 13-17 were rejected under 35 USC § 102(b) as being anticipated by Frantzen et al. (Hardware Facilitated Stack Protection, Proceedings of the 10th USENIX Security Symposium, August, 2001) (hereinafter “Frantzen”).

Applicant has amended claims 1-6 to clarify that the first and second functional units are hardware functional units within the processor of the claims. Independent claim 1 has been further amended to clarify that “the first hardware functional unit is a hardware functional unit dedicated to functions associated to virus detection.”

Applicant has also amended claims 7 and 10 to clarify that the virus detection unit is an element of hardware within a processor.

Applicant has amended claim 11 to clarify that “the first functional unit is an integrated circuit within the processor pipeline dedicated to on-chip virus detection.” Claims 13-17 depend from amended independent claim 11 and the amendment is equally applicable to these claims.

Applicant respectfully submits that these amendments are supported throughout the application, such as in the paragraph beginning at page 8, line 10, with reference to FIG. 3, where the application provides that the virus detection engine 302, authentication unit 306, and virus information unit 304 can be various integrated circuits which are illustrated within the processor 200.

Applicant is unable to find any reference in Frantzen to create or modify any existing processor architecture to include a dedicated, on-chip functional unit (i.e., microprocessing element) dedicated to virus detection. Applicant has amended independent claims 1, 7, and 11 to clarify that the first functional units are hardware elements. Thus, Applicant respectfully requests consideration of the amendments and withdrawal of the 35 U.S.C. § 102(b) rejection of claims 1-7, 10, 11 and 13-17.

§103 Rejection of the Claims

Claims 8, 9, 12 and 18-26 were rejected under 35 USC § 103(a) as being unpatentable over Frantzen et al.

Claims 8 and 9 depend from patentable independent claim 7 and claim 12 depends from patentable independent claim 11. Applicant therefore submits that claims 8, 9, and 12 are also patentable.

Applicant has amended independent claim 18 to clarify that the virus detection unit, as previous claimed, is a virus detection circuit.

Applicant has also amended independent claim 21 to clarify that the first functional unit is a circuit within the processor dedicated to virus detection.

Applicant respectfully submits that the cited references make no reference to an on-chip circuit dedicated to performing virus detection. Although Frantzen deals with virus detection, the virus detection is dependent at least in part on operating system functionality at least to reclaim registers. This is a software solution and not dedicated an on-chip virus detection circuit.

Thus, Applicant respectfully submits that amended independent claims 18 and 21 are patentable over Frantzen. Claims 19-20 and 22-26 depend from patentable independent claims 18 and 21 and are patentable for at least the same reasons.

Withdrawal of the 35 U.S.C. § 103(a) rejection of claims 8, 9, 12 and 18-26 is earnestly requested.

Despite Applicants belief that claim 20 is patentable, Applicant cancels claim 20 at this time to reduce the number of pending claims to 25 in view of the Continuation Rules set to take effect on November 1, 2007. Applicant reserves the right to pursue this claim at a later date in a continuing or divisional application.

Applicant further reiterates the previous traversal of the single reference rejection of claims 8, 9, 12 and 18-26 under 35 U.S.C. § 103 because, as discussed above, not all of the recited elements of the claims are found Frantzen. Since all the elements of the claim are not found in the reference, Applicant assumes that the Examiner is taking official notice of the missing elements. Applicant respectfully objects to the taking of official notice with a single reference obviousness rejection and, pursuant to M.P.E.P. § 2144.03, Applicant respectfully

traverses the assertion of Official Notice and requests that the Examiner cite references in support of this position.

RESERVATION OF RIGHTS

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant's silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner's personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 349-9592 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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